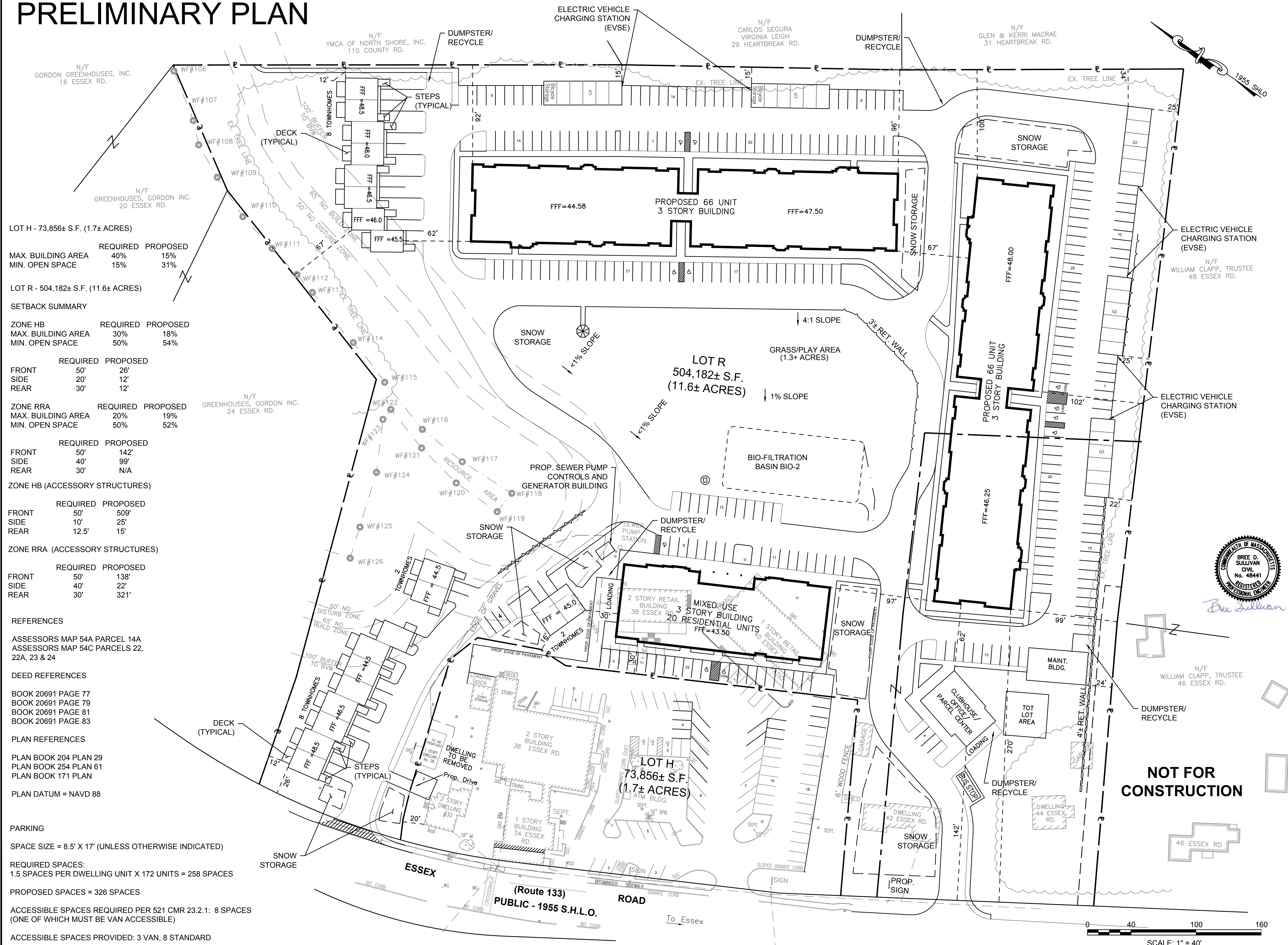


PRELIMINARY PLAN



BAYSIDE
ENGINEERING

600 Unicorn Park Drive ▲ Woburn, MA 01801
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www.baysideengineering.com

PROPOSED SITE PLAN.DWG Plotted on 14-Mar-2019 2:23 PM

PROJECT
ESSEX PASTURES
42-44 ESSEX ROAD
IPSWICH, MASSACHUSETTS

BDS DRAWN BY	3/14/2019 DATE
REVIEWED BY	DATE
APPROVED BY	DATE

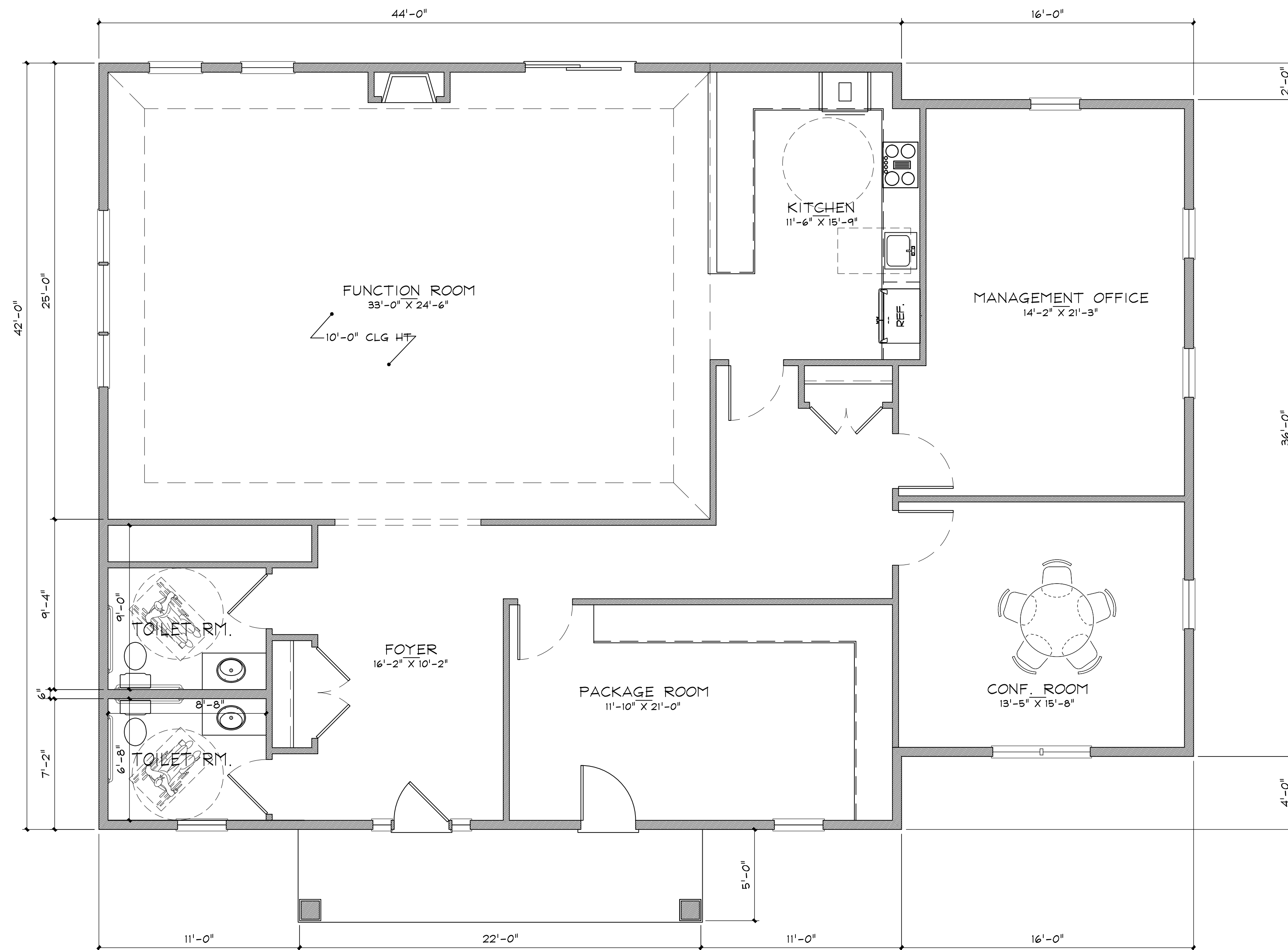
[illegible]

Essex Pastures

SITE LAYOUT

1 SHEET OF 1

**NOT FOR
CONSTRUCTION**



FLOOR PLAN



LEFT SIDE ELEVATION

SCALE: 1/4" = 1'-0"



FRONT ELEVATION

SCALE: 1/4" = 1'-0"

Management Office and Clubhouse

Essex Pastures

Ipswich, MA March 14, 2019

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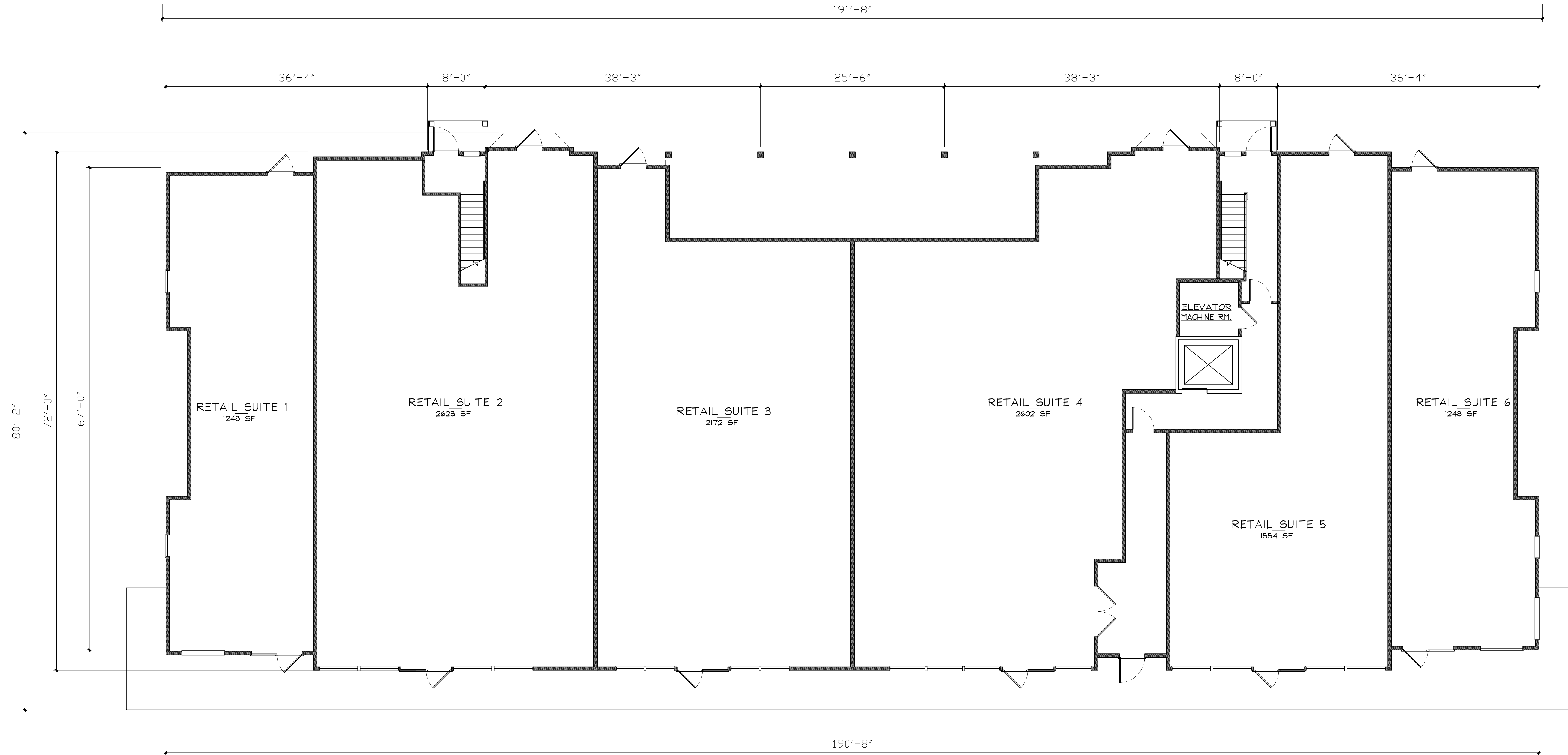
335 Main Street, Suite 201 - Ipswich, Massachusetts 01909
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FRONT ELEVATION

SCALE: 1/8" = 1'-0"

191'-8"



GROUND FLOOR PLAN

SCALE: 1/8" = 1'-0"

Mixed Use Building - 20 Residential Units

Essex Pastures

Ipswich, MA March 14, 2019

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5873

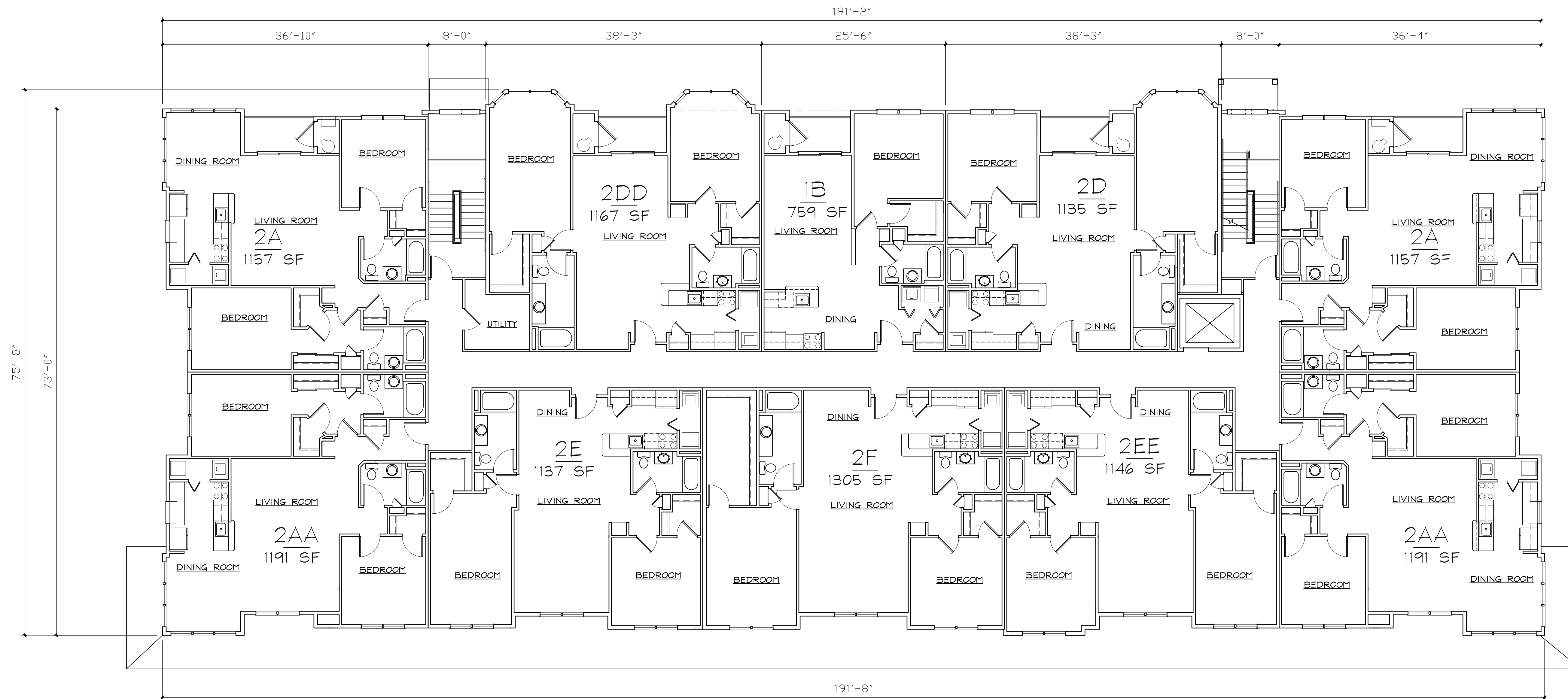
Sheet A-2



FRONT ELEVATION

SCALE: 1/8" = 1'-0"

SCALE: 1/8" = 1'-0"



Mixed Use Building - 20 Residential Units

SECOND FLOOR PLAN

SCALE: 1/8" = 1'-0"

Essex Pastures

Ipswich, MA March 14, 2019

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5873

Sheet A-3



LEFT ELEVATION

SCALE: 1/8" = 1'-0"



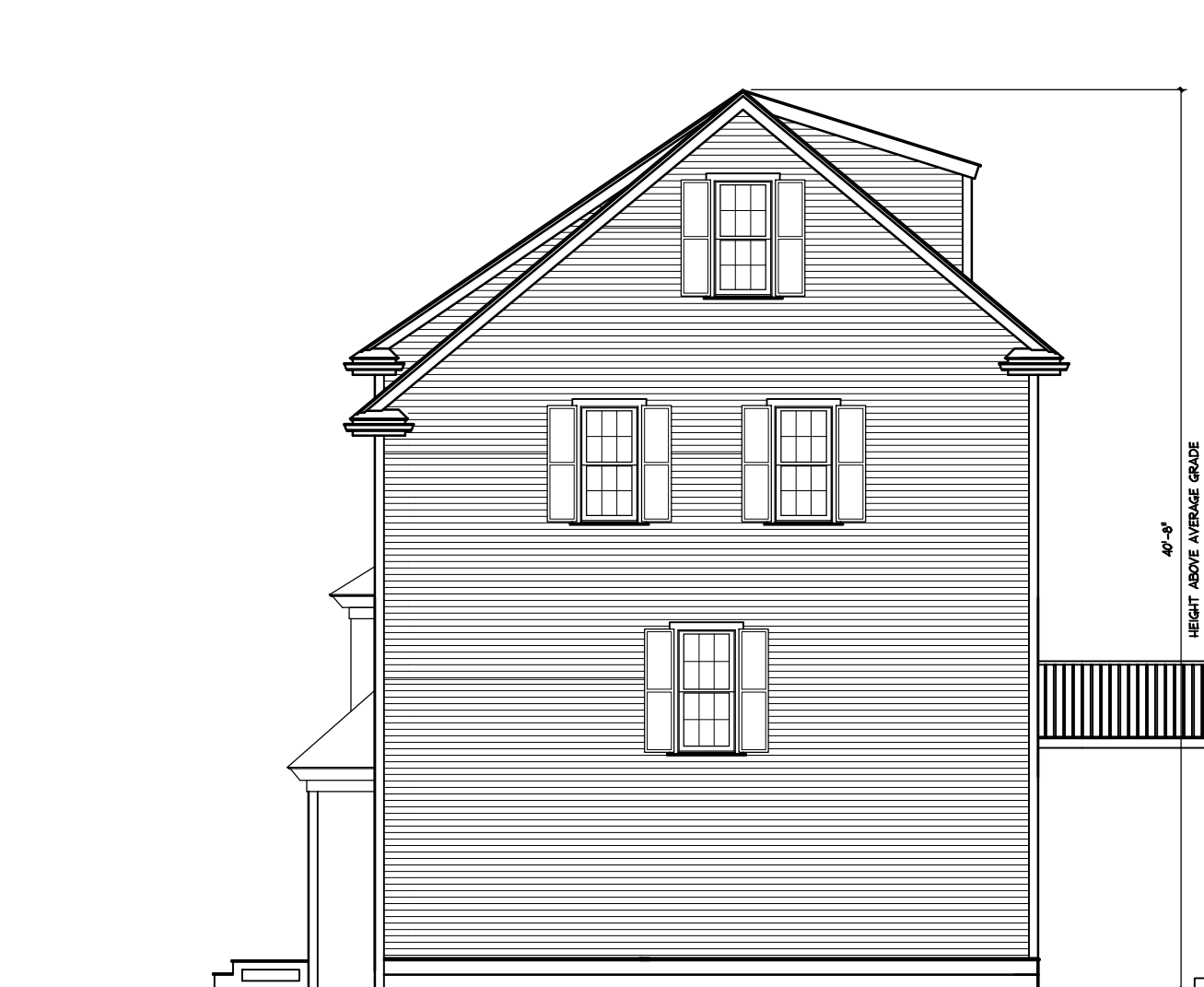
FRONT ELEVATION

SCALE: 1/8" = 1'-0"



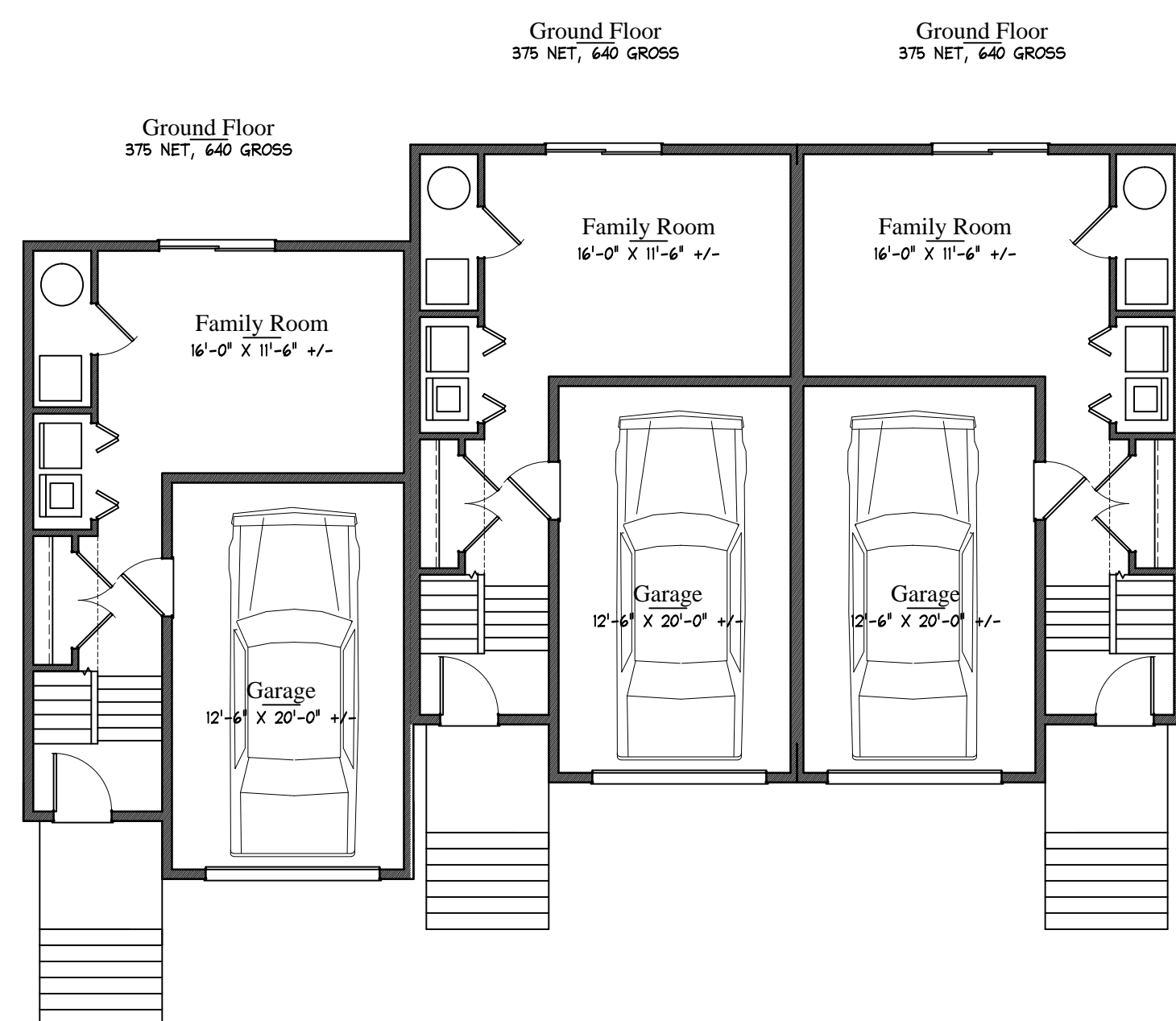
BACK ELEVATION

SCALE: 1/8" = 1'-0"



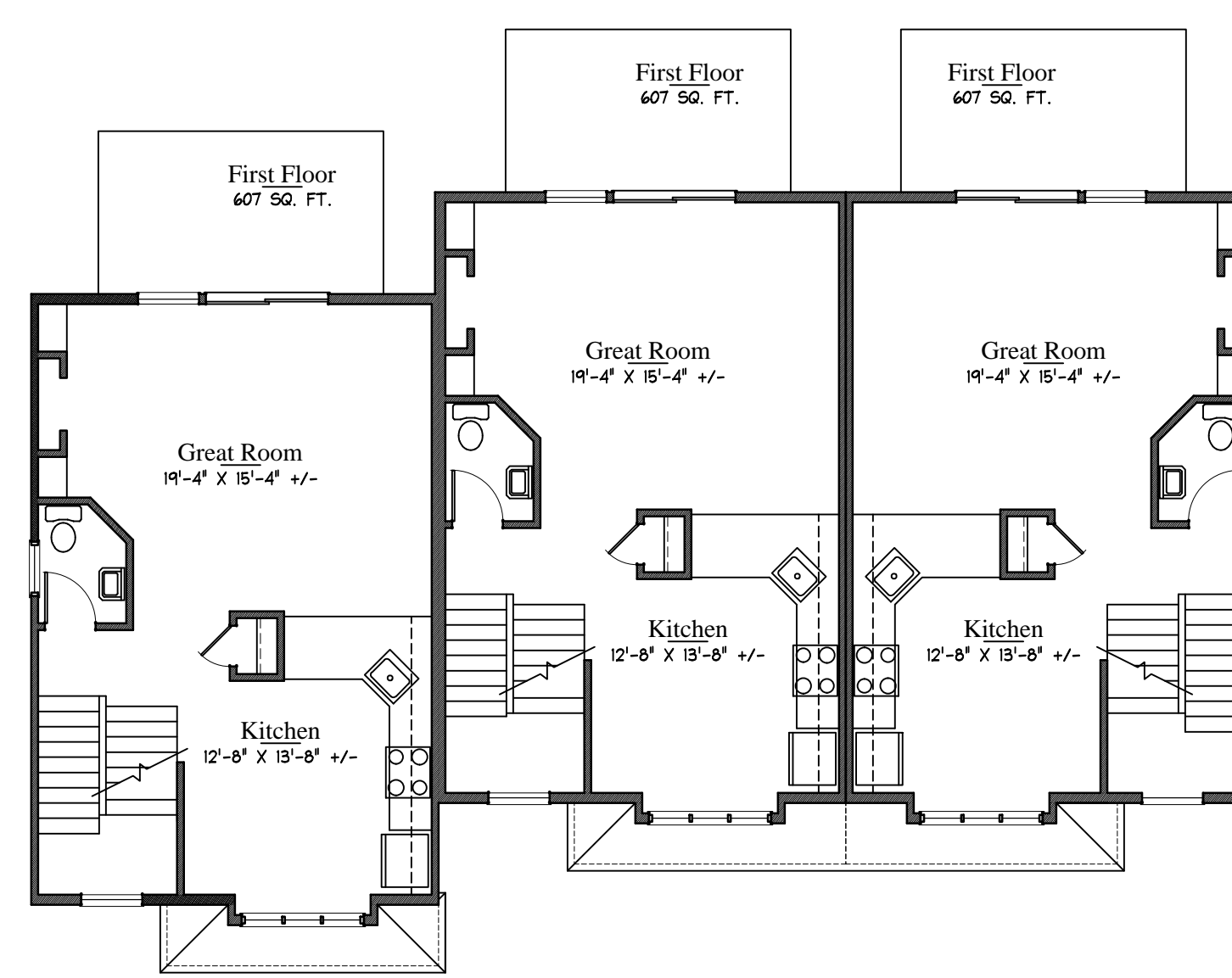
RIGHT ELEVATION

SCALE: 1/8" = 1'-0"



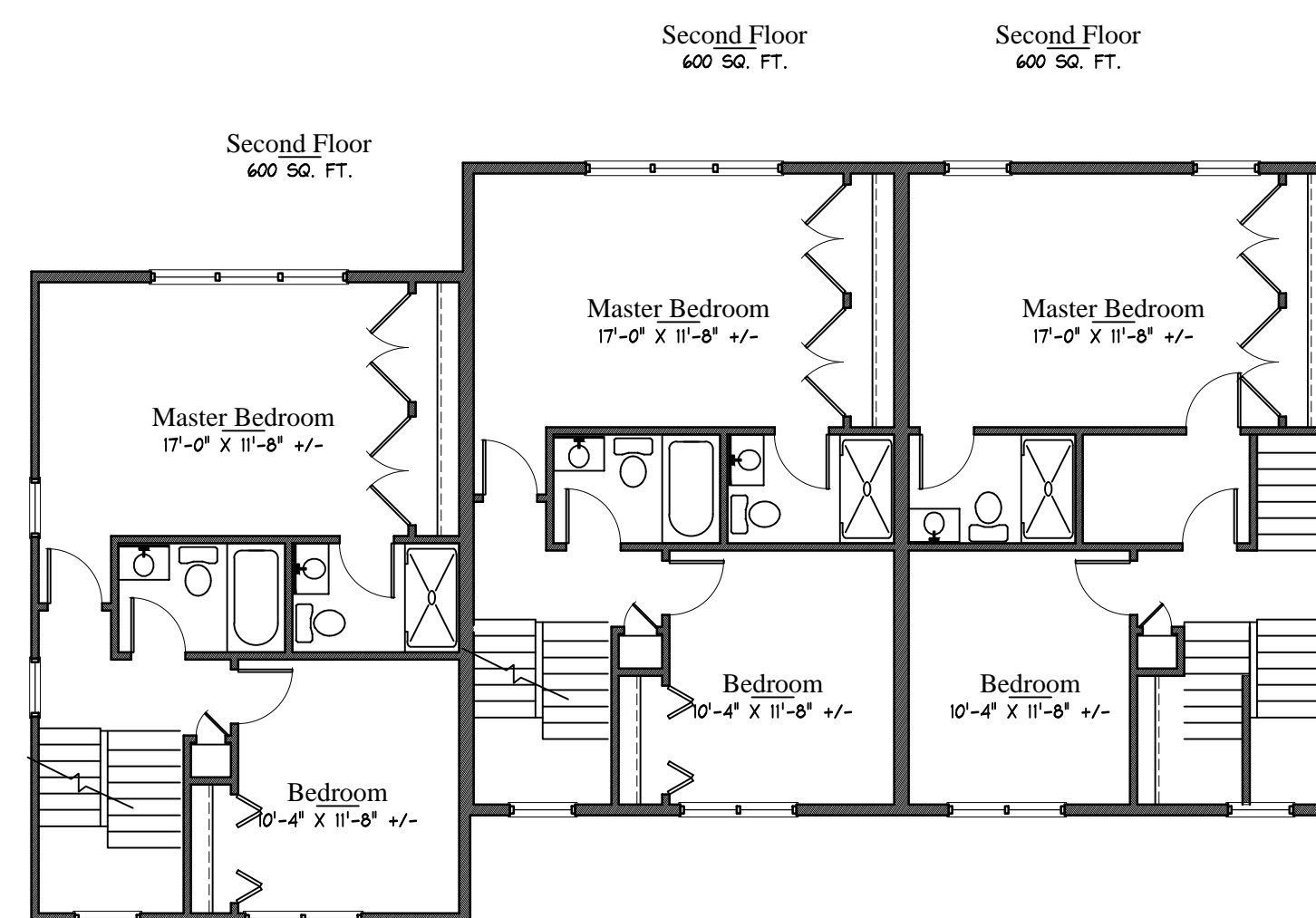
GROUND FLOOR PLAN

SCALE: 1/8" = 1'-0"



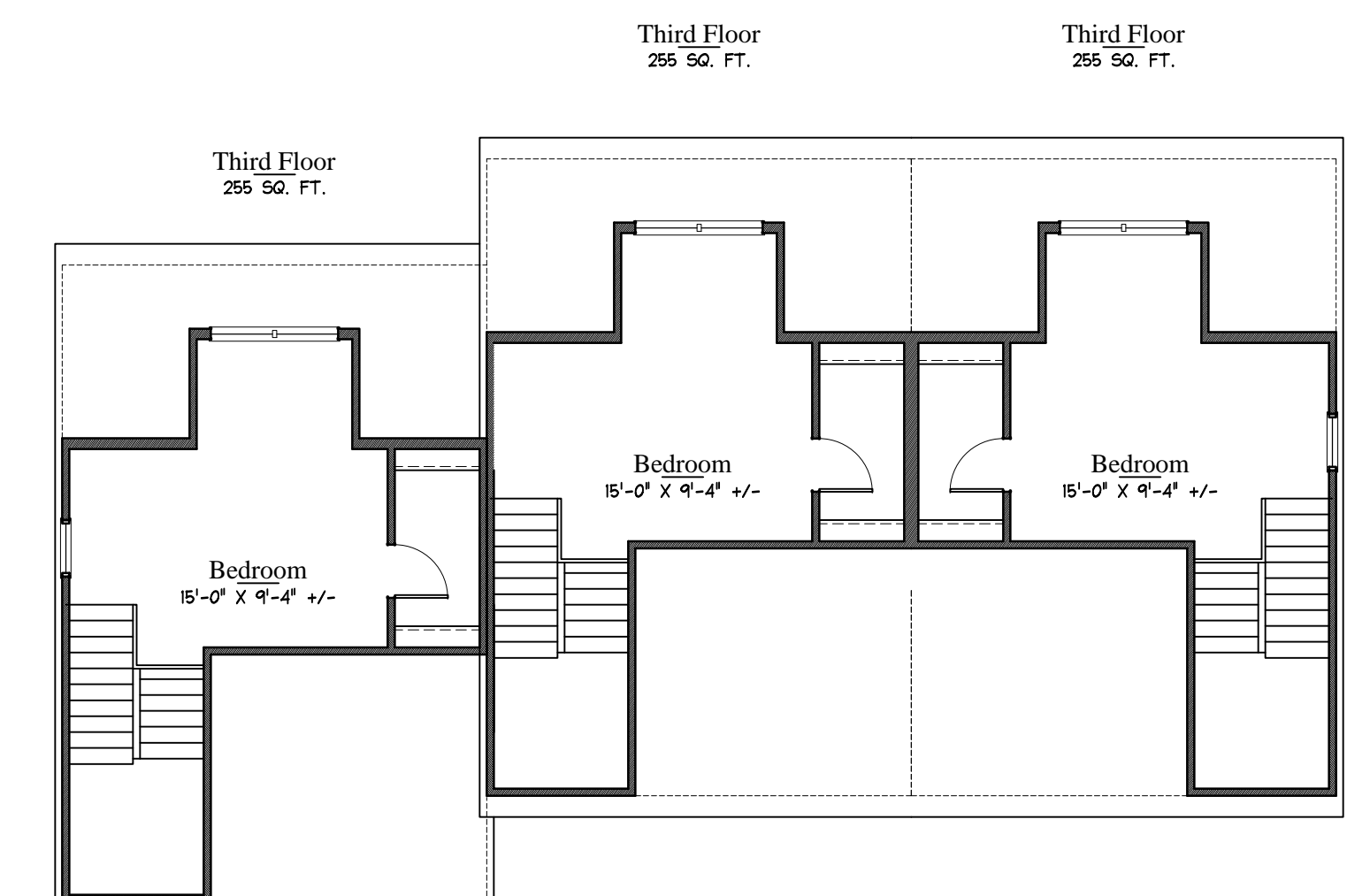
FIRST FLOOR PLAN

SCALE: 1/8" = 1'-0"



SECOND FLOOR PLAN

SCALE: 1/8" = 1'-0"



LOFT PLAN

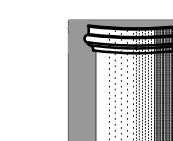
SCALE: 1/8" = 1'-0"

Typical Townhomes

Essex Pastures

Ipswich, MA

March 14, 2019



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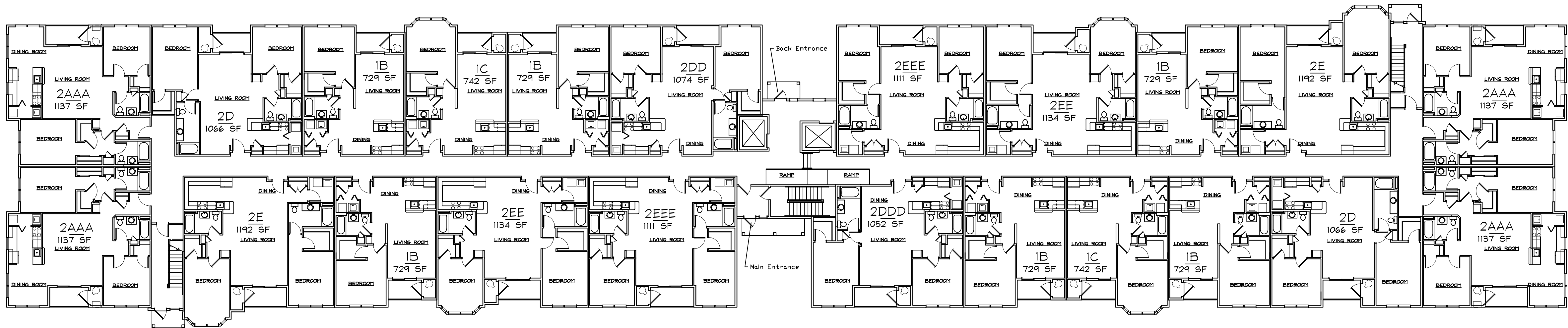
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Sheet A-4



FRONT ELEVATION

SCALE: 1/16" = 1'-0"

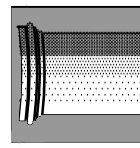


GROUND FLOOR PLAN

SCALE: 1/16" = 1'-0"

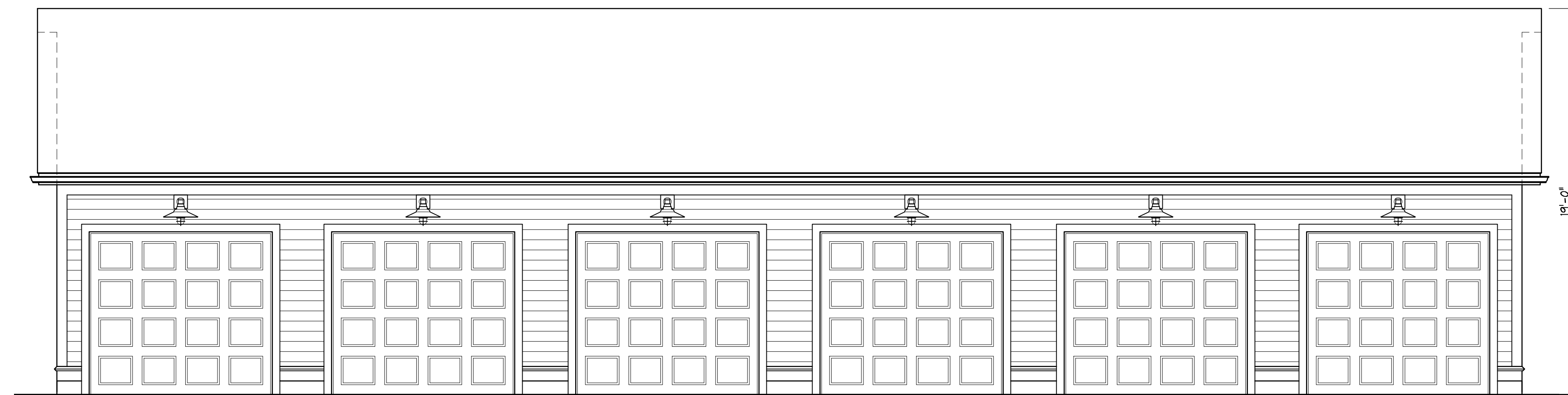
66 unit Building

Essex Pastures
Ipswich, MA March 14, 2019



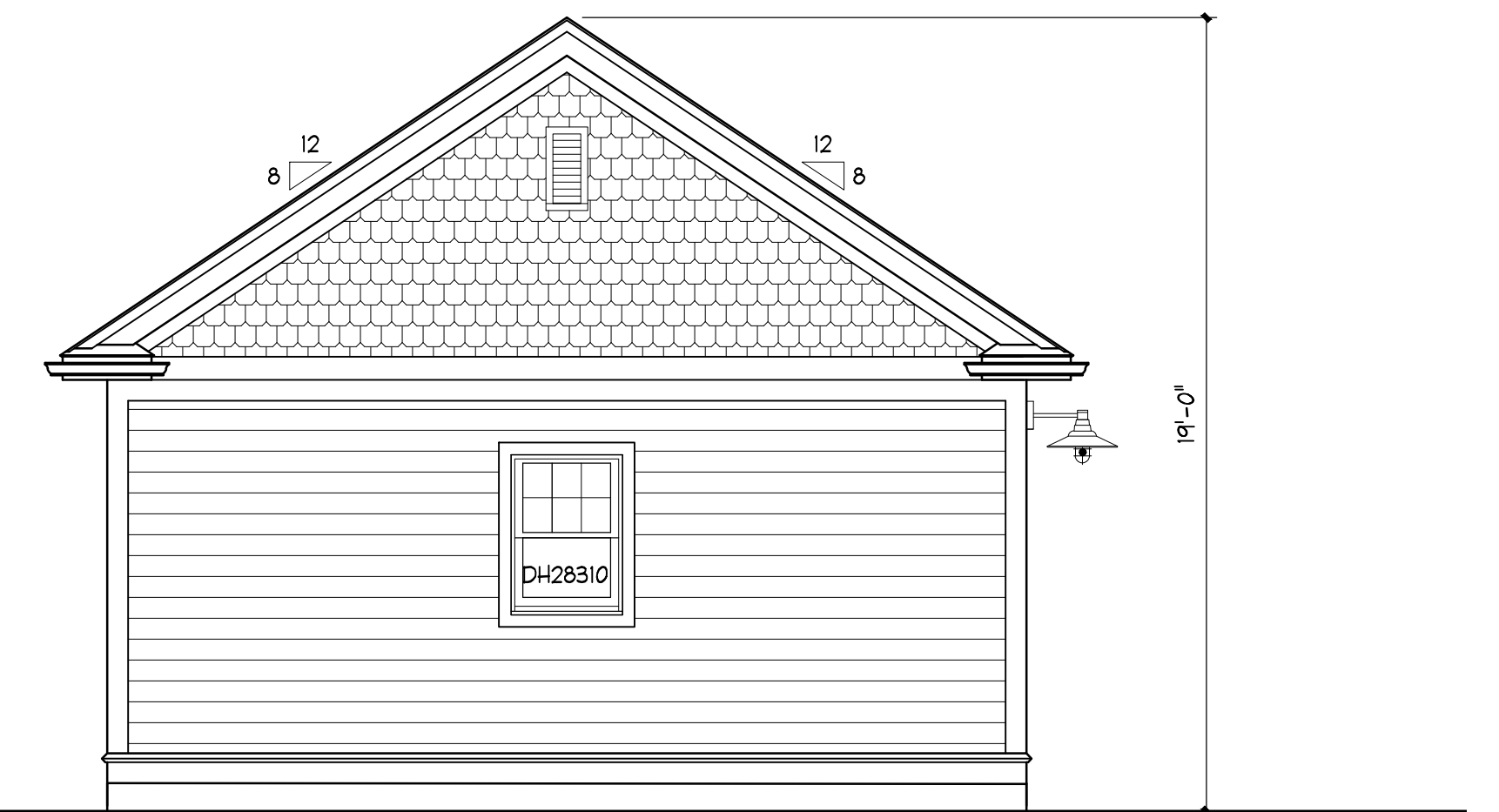
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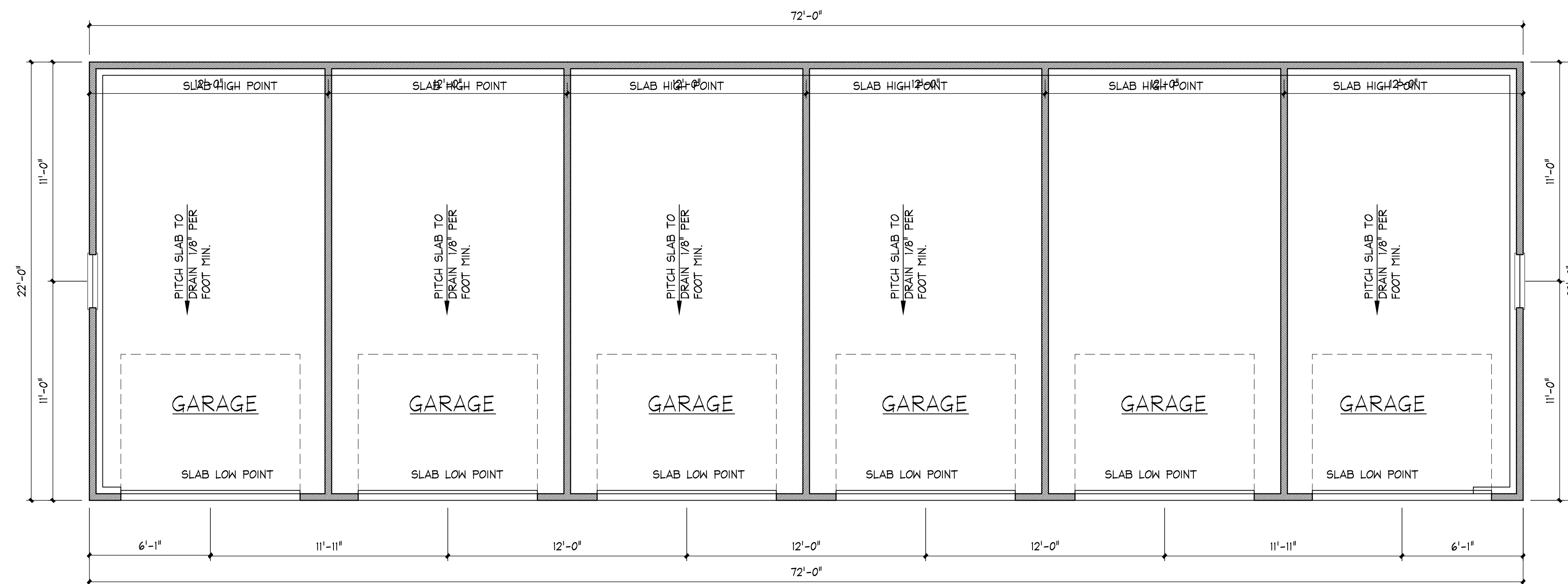
6 UNIT GARAGE FRONT ELEVATION

1/4" = 1'-0" (9'-0" X 7'-0" GARAGE DOORS)



TYP. GARAGE END ELEVATIONS

1/4" = 1'-0"

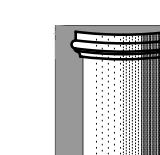


5 UNIT GARAGE PLAN

1/4" = 1'-0"

Garages

Essex Pastures
Ipswich, MA March 14, 2019

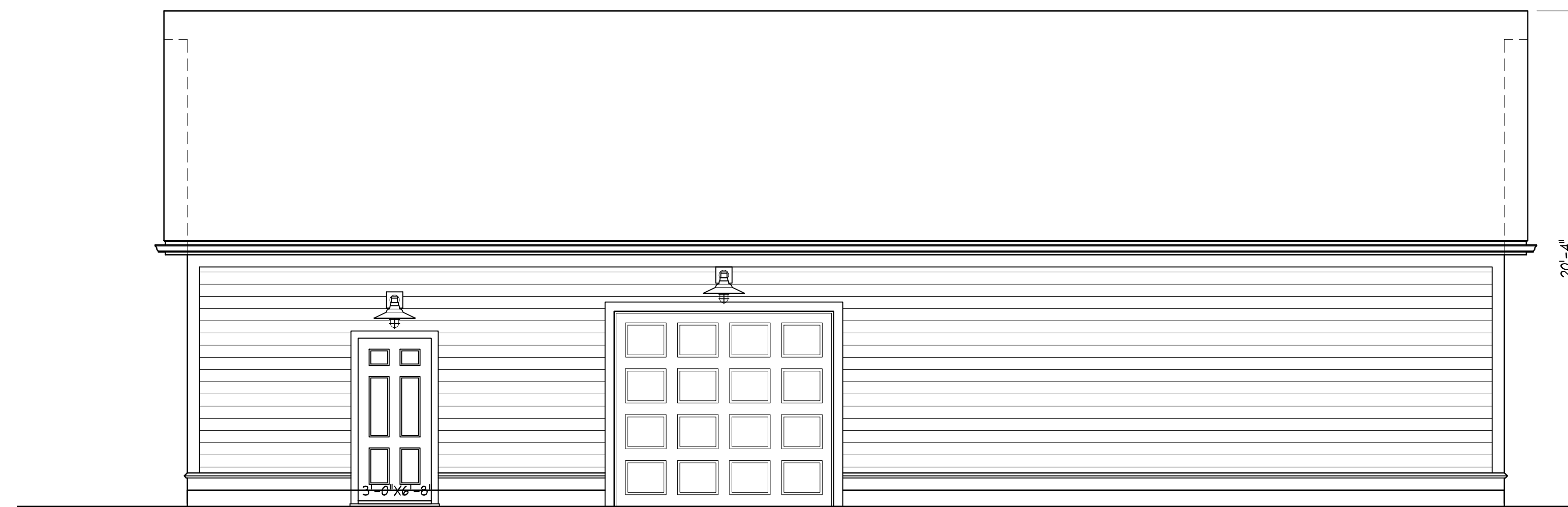


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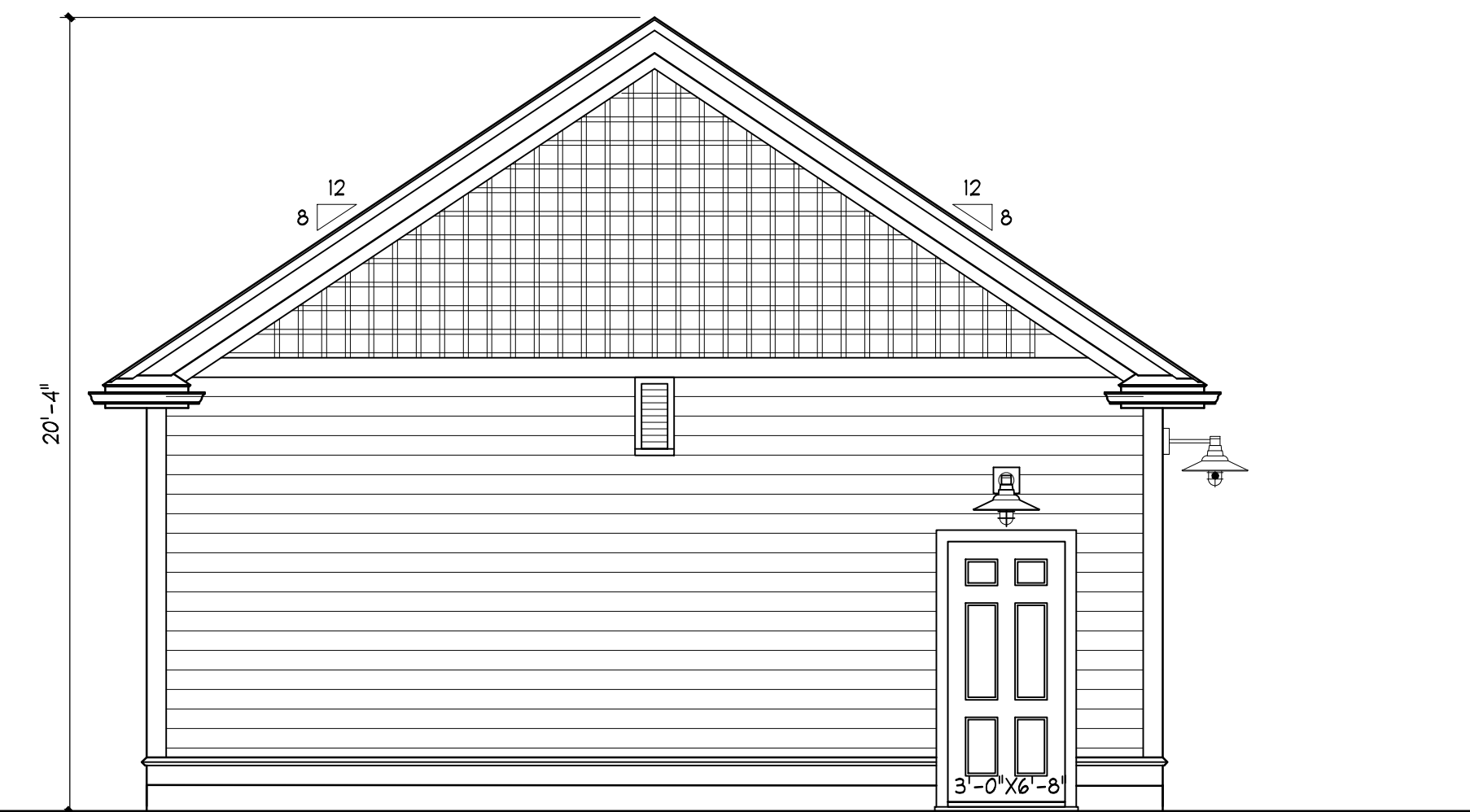
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Sheet A-6



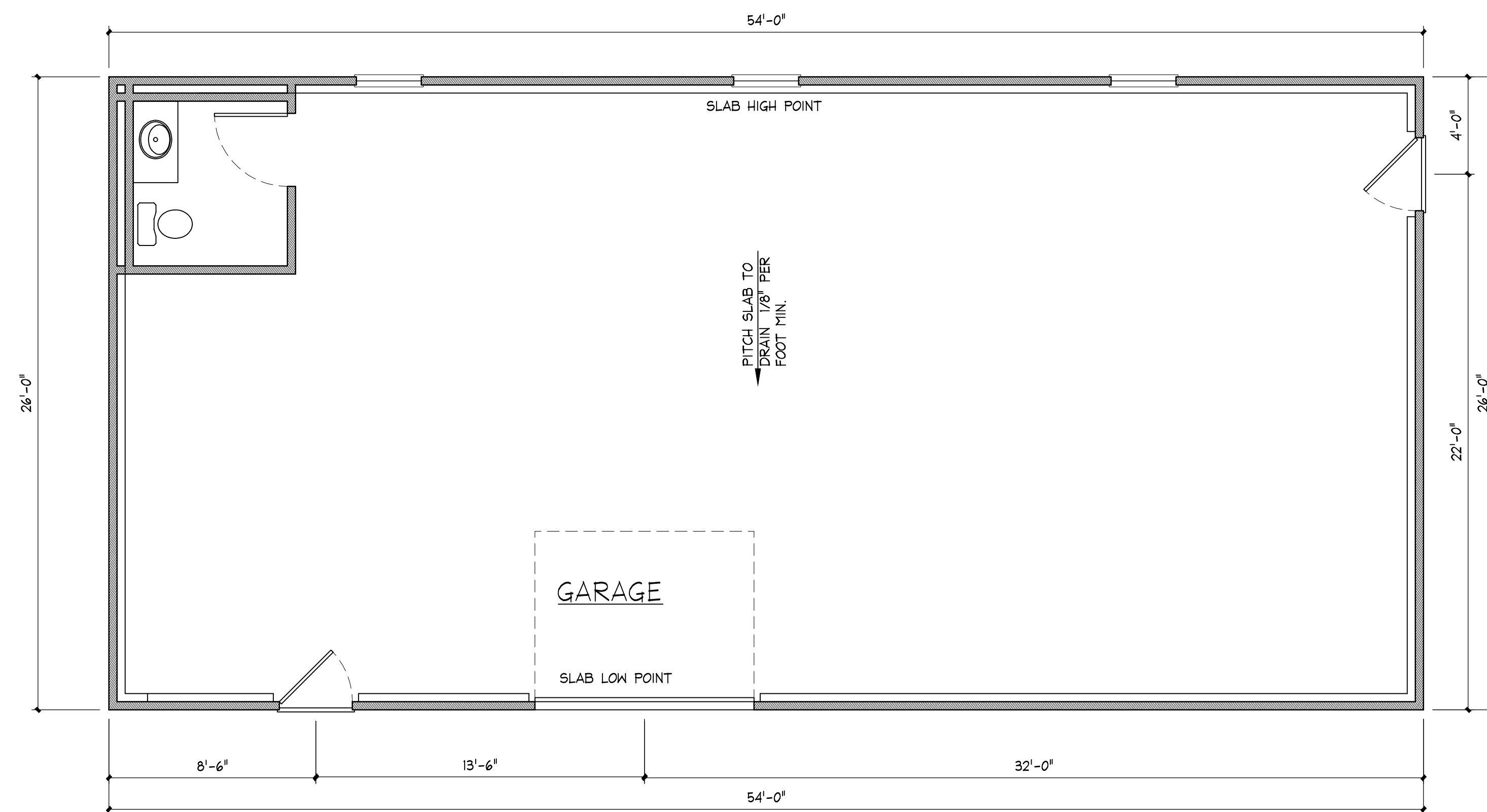
MAINTENANCE BUILDING FRONT ELEVATION

1/4" = 1'-0"



MAINTENANCE BUILDING RIGHT ELEVATION

1/4" = 1'-0"



MAINTENANCE BUILDING PLAN

1/4" = 1'-0"

Maintenance Building

Essex Pastures
Ipswich, MA March 14, 2019

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Sheet A-7



600 Unicorn Park Drive • Woburn, MA 01801

Phone: 781-932-3201 • Fax: 781-932-3413

MEMORANDUM

TO: Mr. John Bruni

FROM: Bree D. Sullivan, P.E.

DATE: March 12, 2019

RE: Essex Pastures - Site Plan Revisions
Essex Road, Ipswich, MA

This memorandum has been prepared to identify the site plan changes and related adjustments since the design was last presented to the Zoning Board of Appeals at the January 17, 2019 hearing. These changes are as follows:

1. Replaced four 4-story buildings with two 3-story buildings which resulted in a significantly reduced building height. This change has also resulted in the number of proposed residential units to change from 192 units originally proposed, and then adjusted to 200 units when a portion of the existing commercial space was transitioned to a mixed use building, to a total residential unit count of 172 units for the project. We also note that as a result of the removal of the 2 existing commercial buildings as a part of the project redesign, three (3) residential units, which were not a part of the originally proposed project, would be removed.
2. Reconfigured the circulation roadways to provide a much larger contiguous green space in the center of the property. The redesign results in the creation of a centrally located open space area of approximately 57,969 square feet (or over 1.3 acres) which includes a gazebo and other improvements to be discussed. The reconfiguration of internal roadways also included increasing the corner radii from 25 to 30 feet in order to accommodate the turning radius of the largest fire apparatus operated by the Ipswich Fire Department, which is the Department's ladder truck, in excess of the state and local access regulations. This provides an additional measure of safety for emergency vehicle maneuverability.



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3. Reconfigured the parking to include a total of 326 spaces (3 van accessible spaces and 8 standard accessible spaces), including a total of 22 spaces for the ground floor commercial use to be contained within the mixed use building. As a result, a total of 304 parking spaces, or over an average of 1.77 spaces per residential unit, are provided at the site which is well in excess of the 1.5 spaces per multifamily residential units required under the zoning bylaw. This parking space count includes driveway parking spaces of the townhouse units.
4. Relocated the northwest townhouses and site entrance to allow for more “front yard” and driveway length.
5. Added the proposed “tot lot” to the plan which is located behind the clubhouse building.
6. Added a sewer pump control and generator building.
7. Added a school bus stop shelter at the clubhouse building.
8. Added a total of six (6) Electric Vehicle Charging (EVSE) stations adjacent to the garages.
9. The distance between the site property line and the closest part of home located at 28 Heartbreak Road is now approximately 93 feet, and the distance between the closest corner of any project building (which is now 3 stories) and that house and garage is approximately 188 feet.
10. The distance between the site property line and the closest part of the house at 31 Heartbreak Road is now approximately 206 feet, and the distance between the closest corner of any project building (which is now 3 stories) and that house and garage is approximately 358 feet.



3/14/19

Ipswich Zoning Board of Appeals
Mr. Bob Gambale, Chair
Town Hall
25 Green St.
Ipswich, MA 01938

Dear Mr. Gambale & ZBA Members:

I am writing to you regarding the Landscape Plan for Essex Pastures, 42-44 Essex Rd.
Modifications to the landscape plan dated 3/12/19 include the following:

- Plantings are now proposed and indicated on the plan for the front of the proposed mixed use building.
- Conservation seed mix is proposed in lieu of turf at the location of the Bio-Filtration Basin (Bio-2). This is a seed mix that will be native and drought tolerant once established.
- The plan has been updated to conform to the current layout with plantings (trees/shrubs) proposed throughout the site. All proposed plantings may be characterized as either native to the east coast, hardy for the region, and/or salt-drought tolerant. All proposed plantings are non-invasive.

Sincerely,

James Emmanuel
Landscape Architect

March 14, 2019

Mr. Bob Gambale, Chair
Zoning Board of Appeals
Town of Ipswich
c/o Building Department
Town Hall
25 Green Street
Ipswich, Massachusetts 01938

RE: Essex Pastures -- 26, 36, 38, 42 and 44 Essex Road
Architectural and Design Enhancements

Dear Chairman Gambale:

As a follow-up to the Applicant's last hearing before the Board, the central issues raised were the proposed layout, height, massing and style of the Project buildings. Accordingly, the Applicant and its Project Team have undertaken considerable efforts over these past number of weeks to respond to these issues as outlined in the letter from Board member Robert Clocker, dated January 17, 2019, comments made by the Board's peer review architect, Cliff Boehmer of Davis Square Architects, as well as the comment letter from the Ipswich Design Review Board, dated September 28, 2019. This letter also responds to comments made through the several meetings with both Mr. Boehmer and Mr. Clocker over the past several months. In order to respond to the "key design issues" that have been articulated in these letters and meetings, we have assembled a 3D model of the proposed residential/mixed use community showing the proposed building, layout and scale of both on-site buildings as well as existing nearby buildings on the abutting properties in order to more clearly define the scale of buildings within the context of the immediate neighborhood.

The following topics are the main themes outlined in the letters and meetings described above, as well as how the project design team has responded to address these main themes:

Specific items shown in the model include:

- **Height and Density**– the proposed height should generally be comparable with surrounding buildings.

Response: The most significant change made to the proposed buildings includes the elimination of all the 4 story buildings and the reduction of all buildings to 3 stories with pitched roofs (4:12). This has allowed us to significantly lower building height. While the measured building heights vary with the existing grade, the average building heights are now approximately 39'6" from finished grade where the tallest buildings were previously 4 stories and up to 50 feet in height. Please note that the maximum building height as defined under the Zoning Bylaw is 45 feet and 3 stories within the Highway Business (HB) Zoning District and is 37 feet and 3 stories within the Rural Residence A (RRA) Zoning District. (We have placed the Clubhouse in the Residential District and it is under 28 feet to the ridge.) As a result, we feel that building height overall is consistent with multifamily and other building types throughout town, and the height of all the multifamily buildings is consistent with the townhouse buildings height as they are more context sensitive in terms of scale and height. We feel this project design adjustment which reduces the number of stories and height represents a substantial concession and dramatic change to the originally proposed building height and massing and makes for a better design within the context of the surrounding neighborhood. Moreover, as a result in the reduction of building massing, the number of units, originally proposed at 194 and then increased to 200 residential units as a result of the introduction of the mixed use building, has now been reduced to a total of 172 residential units, thereby reducing parking needs and related impervious surfaces, while at the same time reducing potential traffic impacts. These adjustments have also led to the reconfiguration of the parking which includes a total of 326 spaces (3 van accessible spaces and 8 standard accessible spaces), including a total of 22 spaces for the ground floor commercial use to be contained within the mixed-use building. As a result, a total of 304 parking spaces, or over an average of 1.77 spaces per residential unit, are provided at the site which is well in excess of the 1.5 spaces per multifamily residential unit required under the zoning bylaw. This parking space count excludes additional parking spaces which could be accommodated within the driveways of the townhouse units.

- **Proportion** – how building elements provide character and neighborhood compatibility.

Response: The buildings have been located to provide both neighborhood compatibility and character. For example, the community building, which has been located approximately 150 feet from Essex Road, is situated to be adjacent to the closest off-site residential dwelling along Essex Road in order to maintain a consistent scale of buildings along the southeasterly section of the site. The clubhouse area has also incorporated a bus stop location for school students so that there is a safe location for the pickup and drop-off of students within the site. Similarly, townhouses located along Essex Road have been located next to existing on-site buildings to provide consistent, smaller-scale and proportions along Essex Road. As a result, transitioning from smaller to a taller mixed use building in the center of the site, and

then transitioning to a lower height to the rear of the site creates a stronger hierarchy of building layout, scale and proportions throughout the Project.

- **Scale** – the scale should be compatible with the surrounding architecture and landscaping context, and compatibility of different building scales or sizes may be addressed by building typology, orientation, roof lines, setbacks and position of buildings on site. Soften the rigidity and place smaller buildings along Essex Road. Consider stacking buildings in center of site as screening for the other buildings to the rear. Consider alternating building footprints.

Response: The project team has undertaken significant efforts to respond to matters of scale. For example, the smaller-scale community building has been re-oriented and repositioned in a manner following the curvilinear entrance to the community. Similarly, the townhouse buildings both to the northwest along Essex Road and northeast to the rear of the site have been repositioned to follow the bend of the driveways to form a consistent symmetry of building repositioning. The modified curvilinear drives also serve as additional traffic calming measures. Moreover, the mixed-use building in the center of the site provides for varying building articulation to break up the massing both vertically in design, as well as horizontally with the introduction of canopy trim and signage for the ground floor commercial uses. The scale of the buildings to the rear of the site have also been repositioned to break up the rigid, linear placement of buildings so that the buildings follow the topography in a gently curving design. The proposed clubhouse facades have been carefully articulated to present traditional scaled elements that also appear in the larger structures to create architectural symmetry throughout the site. The 3D model is a good representation of this design.

- **Architectural and Site Details** – little qualitative information has been provided on these items such as trim around entrances and windows, exterior cladding materials, roof types, outdoor lighting, fencing and landscape buffers.

Response: Buildings will have traditional trim and horizontal siding with architectural shingles on hipped roofs, similar to other architectural details commonly found in Ipswich. The Project Civil Engineer has also adjusted on site details such as paving, curbing, walks and drainage design which is described in a separate memorandum from Bayside Engineering.

- **Facade Design and Articulation** – how the building facades relate to the context including materials, colors and depths, and how the massing can be broken down by varying facade treatments and articulation.

Response: The model shows how the proposed buildings are composed of elements that are similar in scale to some of the more prominent historical structures found in other neighborhoods of the Town of Ipswich. The strong cornice line is found in many of the traditional structures in all parts of Ipswich. The facades of the buildings are articulated and varied in such a way so as

to break down the massing, and to create varying depths, in order to provide visual differentiation. Additionally, the hip roof design of these buildings serves to both provide a varying roofline providing visual interest, and also serves to enclose rooftop mechanicals to mitigate any potential visual or noise impacts. Building colors will be selected to provide for a consistent coloring regimen which will include traditional colors to blend into the surrounding neighborhood.

- **Shape** – how the buildings relate to each other and create outdoor spaces.

Response: Buildings have been reoriented so that they are located in such a way so as to maximize recreational and open space opportunities. The driveway to the rear of the site has been realigned to maintain the integrity and continuity of the centrally-located common area. The buildings surrounding the common area greenspace, including the buildings to the rear of the site as well as the centrally located mixed use building, serve as bookends and provide a detailed edge to shape an attractive and functional outdoor space. As a result, the redesign of the common area results in the creation of a centrally located open space area of approximately 57,969 square feet (or over 1.3 acres). This central common area has been shaped to provide for a variety of recreational uses for residents of varying ages, including an outdoor patio and gazebo located centrally to the rear of the site and away from Essex Road; thereby providing for a safe, secure, and centrally located common for the use and enjoyment of all community residents and enhancing the sense of community.

- **Design Treatments of the Edge; Setback and Screening** – how spaces are defined, activities are articulated, and project boundaries are treated.

Response: Effort has been made to orient the buildings and roads to moderate the building massing, accentuate open space, respect human scale and enhance the pedestrian environment. Existing wooded areas on the property will remain to the extent practicable to maintain an existing treed canopy. Off-site wooded areas on adjacent properties are represented in the model to provide an accurate depiction of existing screening. Additional visual screening and buffering designed to provide a consistent visual green buffer between the properties to the northeast are depicted along the northern and eastern property lines to maintain a year-round buffer consisting of dense evergreen plantings, and plantings are proposed that will fill in at the low, middle and upper levels of the horizon. Canopy trees will be planted as necessary to round out potential screening gaps along these boundaries. The new mixed use commercial and residential building located in the center of the site provides a refreshed commercial front to the entire property along Essex Road to complement the project's residential uses. Buildings will respect the setbacks required under the Ipswich Zoning By-Law. Additional screening will be provided in these setback areas, as depicted in the updated civil plans prepared by Bayside Engineering. Proposed parking garages located along the site perimeter are designed to serve as supplemental visual, light and noise barrier screening between the site and abutting uses and are designed to be

compatible with building architecture. Interior landscaping will be located to provide year-round visual interest with a variety of trees, shrubs and other plantings. Internal drives will be planted with street trees in order to create the effect of a tree-lined roadway with pedestrian walkways providing pedestrian connections to buildings with connections to the sidewalk system along Essex Road, and are designed to provide a neighborhood feel to the community. Lighting will be pedestrian-scale and will include cutoffs to ensure no off-site glare, and all pedestrian furniture such as benches, and plantings will be compatible with the architectural design and style of the structures to enhance the character of the surrounding area. Drives will be wide enough to accommodate pedestrian, vehicular and bicycle access throughout the site and to Essex Road to facilitate pedestrian and bicycle connectivity. The open space area will be defined by a densely buffered mix of plantings strategically located to provide buffering as visual interest. Those areas of the site along the perimeter which will remain open space will be planted with drought-tolerant native grasses, perennials and wildflowers that do not need frequent mowing or watering. These open space areas will provide a more natural edge to the site perimeter particularly near wetland resource areas and accompanying buffer zones.

We look forward to our next hearing before the Board on March 14 to present the model for your review and comment.

Sincerely



Andrew T. Zalewski, A.I.A.
President, The MZO GROUP

azalewski@mzogroup.com



March 12, 2019

Robert Gambale, Chair
Ipswich Zoning Board of Appeals
25 Green Street
Ipswich, MA 01938

**Subject: Essex Pastures Comprehensive 40B Permit
Response to the Ipswich River Watershed Association (IRWA) letter
dated August 13, 2018**

Dear Mr. Gambale:

This letter is provided to respond to the matters raised in the Ipswich River Watershed Association letter to the board dated August 13, 2018. The project designers have taken significant steps during design process to reduce the potential impact of the development to water quality by incorporating project components that exceed current standards and regulations for the protection of sensitive wetland and other resource areas. These design components are outlined as follows.

General

While we understand the current status of the Ipswich River Watershed, both water quality and quantity for both supply and runoff will be well-managed and will be significantly improved for this proposed mixed use community. As a general matter, water exportation (or the movement of water out of a particular watershed area) has become a systemic issue since the implementation of centralized wastewater treatment plants in the 1960's as a response to concentrated population growth. As a result, groundwater withdrawals from a particular watershed area are distributed for use, collected, treated and sent downstream rather than being infiltrated back into the ground to recharge the groundwater within the same watershed. The U.S. EPA and MassDEP have responded to this condition by promulgating regulations designed to reduce and reverse the damage caused by water exportation. These measures are codified at the State level in the State Building Code and Massachusetts Stormwater Regulations. The Ipswich River also experiences low flow events during the summer as a result of upstream water withdrawals (which in general are permitted by the Commonwealth). The conditions that contribute to watershed stress are multifold and systemic. When designing systems for new development, we are constrained by the regulations, which are the result of a well-documented, well-vetted process that provides for both increased water availability and the protection of water quality resources while allowing for necessary growth. These measures are required because the vast majority of existing development today, both in Ipswich and in other communities, have not incorporated stormwater quality and quantity measures which new development is now

1. – Statement is Based on MassDEP analysis of summer-to-winter water use ratios from the 2016 Annual Statistical Report data for two communities in Eastern Massachusetts. Stormwater treatment is not required for small subdivisions or single-family homes.

required to address. Contrary to popular belief, high-density development helps to reduce stress on watersheds by allowing for lower per-capita water use rates and a higher level of stormwater treatment than lower-density development.¹

Design

Water Supply

Ipswich per capita water usage for residential uses is an average of 67.1 gallons per capita per day (gpcd) for the 13 year period from 2002-2014. This is slightly higher than the recommended 65 gpcd. Conservation measures proposed for the development will meet or exceed the current regulations, which will reduce the gpcd rate for the development. These water conservation efforts will include the following:

- Toilets will be high-efficiency (HET) 1.28 gallons per flush (gpf) – 20% less than 1.6 gpf toilets. These fixtures bear the EPA Watersense certification for efficiency.
- Low flow fixtures will be specified for all units.
- All units will be sub-metered for water usage to monitor usage and for potential leaks.
- Plantings will be drought tolerant (further planting details will be provided by the landscaping consultant)

System demand calculations will be submitted in the forthcoming utilities report once a definitive site layout has been determined.

Stormwater Collection and Treatment

Existing conditions

The existing conditions of the site are well-documented and the proposed redevelopment was evaluated for factors that contribute to an efficient low-impact stormwater design within the limits of the Stormwater Regulations. According to US Natural Resources Conservation Service (NRCS) Soil Map, soils at the site are silt-loam and silt-clay-loam which are restrictive soils. . Additionally, approximately 70% of the existing commercial development parking lot currently discharges untreated to the adjacent wetland.

Proposed Conditions/Improvements

During design development, it was essential to maximize stormwater treatment using a variety of the MassDEP approved treatment and conveyance methods. The resulting stormwater system meets or exceeds these requirements. These improvements include:

- Upgrading the existing commercial parking lot drainage system to provide treatment where no stormwater treatment currently exists.
- Biofiltration – the implementation of biofiltration is one of the most effective stormwater treatment methods with a minimum of 91% Total Suspended Solids (TSS) removal, and for some locations at the site, TSS treatment and removal increases up to 96%. The state standard is 80% TSS removal, so this method of stormwater treatment for the site far exceeds what the State stormwater management standards require.
- Infiltration of roof runoff – The required infiltration volume for the site based on the soils is 5,845 cubic feet (c.f.). Infiltration of the rooftop runoff will provide 16,259 c.f. of stormwater in the 2 year storm. This is 2.8x the required volume.
- Treebox filters – these filters will provide greater than 90% TSS removal prior to discharge.
- Grassed swales – the integration of grass swales will provide pollutant removal prior to discharge to other infiltrative practices in a manner which also maintains green space.

Our stormwater analysis, which was performed in accordance with the MassDEP Stormwater Management Policy and related technical guidance, indicates a minimum of 24,791 c.f. of “water-quality” treatment volume. Under our proposed, and conservative, project stormwater design, however, the combination of Bio-filtration and rooftop infiltration allows for a minimum of 37,366 c.f. of treatment volume, or 1.5x the required volume.

The proposed site development also includes measures designed to meet the Ipswich Wetland Protection Bylaw Rules and Regulations by observing the 50-foot no disturb zone and 15-foot no build zone in most of the areas. These areas are currently maintained as mowed turf grass and cultivated agricultural land. The design also minimizes disturbance in the remainder in the 100-foot wetlands buffer zone.

Conclusion

Through careful design, the team has taken steps to exceed the state-mandated conservation and stormwater requirements, and to meet the more stringent Ipswich Wetland Protection Bylaw Rules and Regulations in most areas. Infiltrating 100% of the site runoff is not practical and does not replicate the current runoff regime. By exceeding the state regulations with respect to runoff infiltration volume and quality, we are providing well in excess of the stormwater quality and quantity protective measures than the minimum required. The combination of the installation of HET and low flow fixtures, higher-density development, and the incorporation of low-impact drought tolerant landscaping will significantly reduce the impact to water supply and water quality and

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provide for a per capita reduction in the average daily water demand for this development.

Sincerely,

BAYSIDE ENGINEERING, INC.

A handwritten signature in blue ink that reads "Bree Sullivan". The signature is written in a cursive, flowing style.

Bree Sullivan, P.E.
Senior Civil and Environmental Engineer